

JOHN ~~FRANCIS~~ VIGANI, FIRST PROFESSOR
OF CHEMISTRY IN THE UNIVERSITY OF
CAMBRIDGE (1703-12), AND HIS MATERIA
MEDICA CABINET IN THE LIBRARY OF
QUEENS' COLLEGE

BY

E. SAVILLE PECK, M.A., PH.D.

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(Read 13 February, 1933.)

A paper upon John Francis Vigani, first Professor of Chemistry in the University of Cambridge, was read before this Society on 16 May, 1894, by Professor John Ferguson of Glasgow. The paper, however, was not published in our *Proceedings* and was subsequently found in the Library of Glasgow University by Miss Elizabeth H. Alexander who forwarded it to the Society. The Council considered the matter and entrusted me with the task of selecting certain passages and sections which have particular local interest, and suggested I should embody these in a paper together with an account of the Materia Medica Cabinet in Queens' College Library, said to have belonged to Vigani.

I. AN OUTLINE OF VIGANI'S LIFE.

So far as Professor Ferguson was able to discover there are no official records of Vigani except that of his appointment as Professor of Chemistry in 1703. There is, therefore, very little for the construction of what might be called a biography of Vigani.

All authorities agree that he was a native of Verona. To the period of his birth we can make only an approximation by inference from other definitely fixed dates. Professor Ferguson in his paper went to considerable pains to show that he was born not later than 1650. One reason he gives for this being that Vigani speaks of his having been in Parma in 1671 where he saw repeatedly a quack, or "empiric," swallow snake



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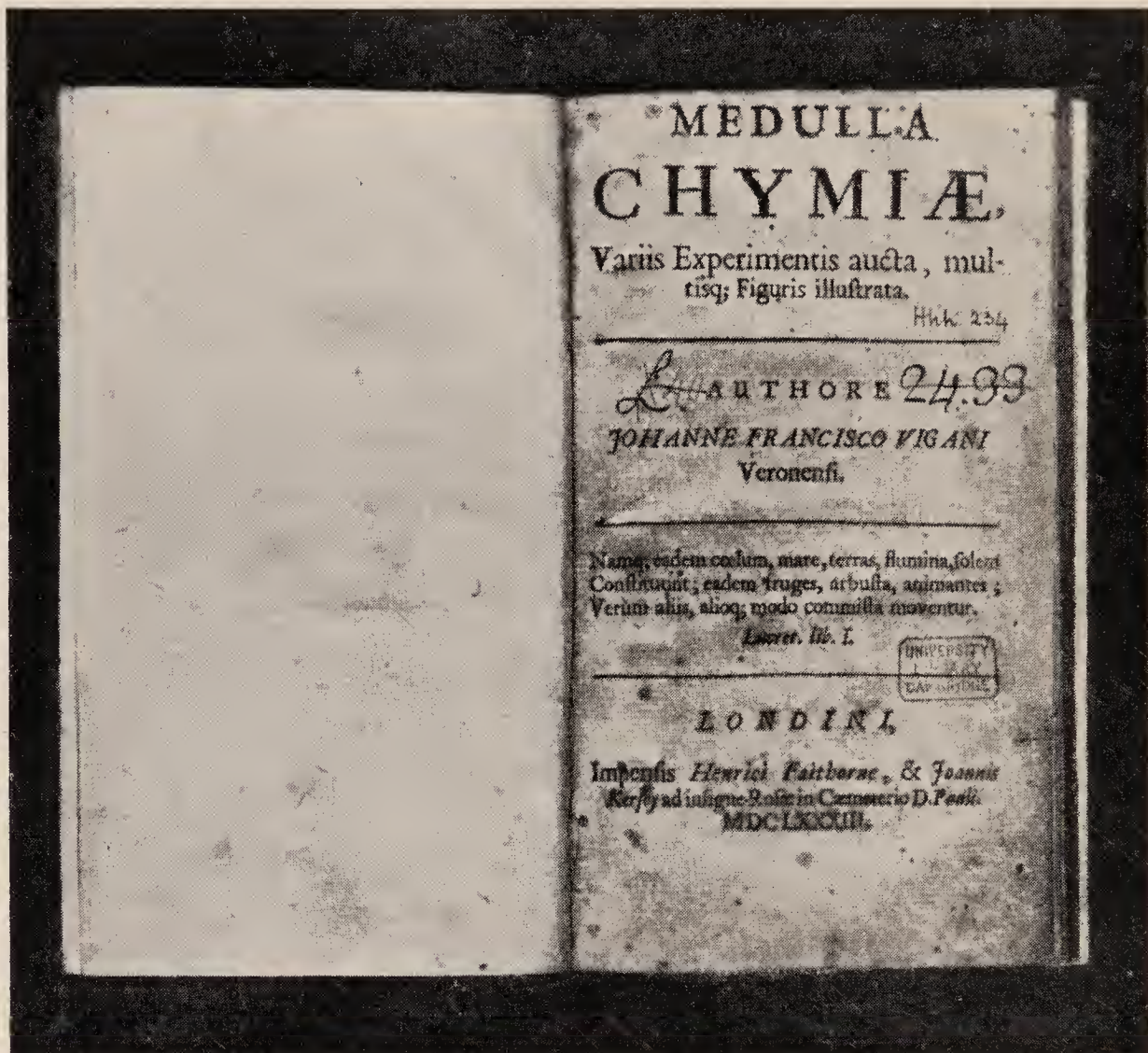


Fig. 1.

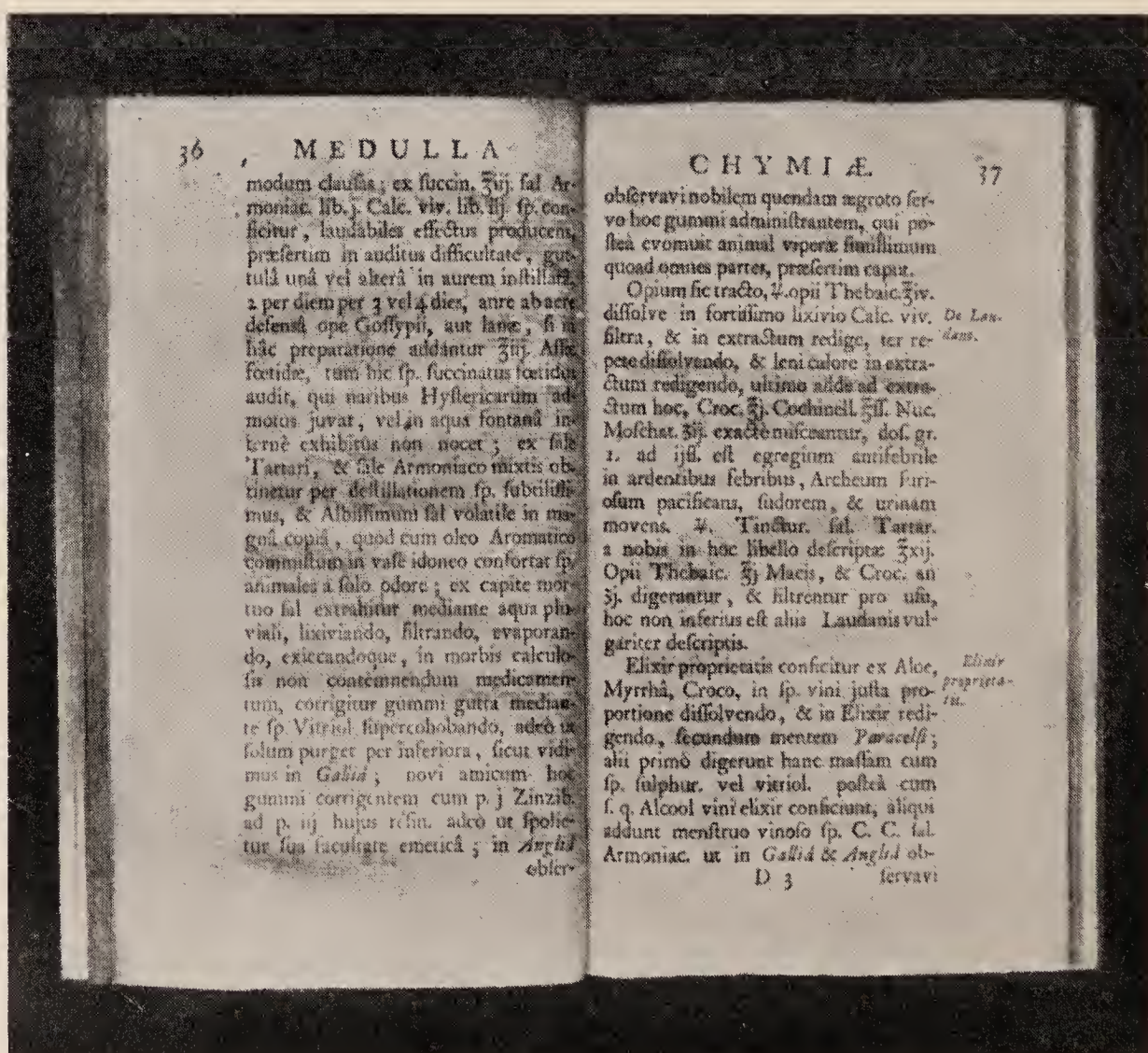


Fig. 2.

poison, and it is unlikely that in those days a student would begin his travels before reaching the age of 21. Of his early life in Verona we have no record. He has not told us where he studied chemistry and pharmacy, he makes no allusion to any special teacher, and there is no positive proof that he was a physician, nor any indication of his having a degree or a licence to practise medicine or pharmacy. He evidently travelled in Spain, France and Holland and appears to have explored mines, collected minerals and plants, and gathered information on medicine and pharmacy.

In these travels he must have met several eminent chemists and discussed with them problems and processes connected with the subject. We have no portrait of him. We know that during the September of 1682 Vigani was in England, at Newark-on-Trent. Whether he had visited England long before that it is difficult to determine. He may have been in London a short period before settling at Newark or Cambridge. The tenor of a letter from "T.R."—probably Dr Thomas Robson—indicates that he had lived in England and was familiar with the disputes which were agitating apothecaries in the middle of the seventeenth century. In 1682 appears, at Dantzic, the first edition of his book, *Medulla Chymiae*. He published in 1683 a new edition of this book (Pl. I, fig. 1) and other editions followed, published in Leyden, Jena and Nuremberg.

From an incidental remark in the *Life of Richard Bentley* (p. 159), Master of Trinity at this time, by J. H. Monk, D.D., and from the words of the Grace of the Senate appointing him Professor of Chemistry, one may believe that it was in the year 1683 that Vigani began to teach chemistry and possibly pharmacy in Cambridge. If this be so, it seems to have been independently of the University or of any College connexion. He probably took pupils to instruct them in chemical manipulation and the practical operations of the pharmacist. In the British Museum there is a long autograph letter in Italian from Vigani to Dr Covell, then Master of Christ's, written from Newark and dated 2 August, 1692. In this letter he mentions that he had been invited to write a treatise on "Chymistry," and in subsequent letters allusion is made to

such a book, but it was apparently never finished. Among Professor Ferguson's papers, however, there are several pages of notes presumably copied from a manuscript book, which would appear to be the opening chapters of this work.

There can be no doubt, however, that by 1692 he had won for himself a position as a teacher of chemistry in Cambridge. Certain diaries of the period throw interesting lights upon this fact. Abraham de la Pryme, the Yorkshire antiquary, at this time an undergraduate of St John's College, has the following paragraph in his amusing diary:

"Towards the end of this year I went a course of Chymistry with Signor Johannes Franciscus Vigani, a very learned Chemist and a great traveller but a drunken fellow, yet by reason of the abstruceness of the art I got little or no good thereby."

As an impressionist picture this epigrammatic summary leaves little to be desired, but as a portrait one may well question its accuracy.

"We may admit," says Ferguson, "the abstruceness of the Art as a reason for de la Pryme having made little progress in Chymistry, yet if we may judge by Vigani's correspondence his command of English was distinctly limited, and if we take his spelling as phonetically representing his notion of English words his pronunciation must have been often atrociously unintelligible." This reference to his being a drunkard is referred to by de la Pryme and by no one else. On 9 November, 1696, we have an interesting letter (Pl. II, fig. 1) written by Vigani from Catharine Hall, Cambridge, to his publisher Mr Newborough. I have been unable so far to trace in the records of this College that he was definitely attached to it—in other words that he was actually "in Commons"—but in searching for this, Dr W. H. S. Jones (Bursar) discovered¹ in the Memoranda of Dr Eachard, the Master at that time, several prescriptions showing that he was greatly interested in the subject of chemistry. Amongst them, prescriptions for the

¹ A further reference has since been found under the name "Signior Vigani" in a contemporary tutor's account-book, thus:

Lent him X ^{mas} '96	1. 5. 0.
P ^d for bed hire	0. 4. 0.

Fig. 1.

Fig. 2.

preparation of Dr Hobbes's lime water, Mr Salmon of Saxmundham's recipe for gout, containing grains of paradise, long pepper and four or five gallons of ale, and an electuary against scurvy, containing rhubarb. These entries were all delightfully mixed up with a comparison of Demosthenes, Cicero, Plato, Aristotle and other great writers. In another letter, of 3 March, 1698, Vigani mentions the Elixir Proprietatis, a well-known remedy of that time.

In a letter addressed to Dr Sloane, 2 February, 1701/2, de la Pryme refers to Vigani's lectures in a more favourable way, as follows:

"I remember that when I learned that noble science with Signor Vigani he preached us a whole lecture of the virtues of this wonderful substance but was so ingenuous as to confess that he had never made tryal of the same."

The substance referred to is "nostoc gelly," to which notable virtues were ascribed. This substance was known also as "star slough" or "star-shot gelly," and was believed to have been a substance that fell from the stars.

Nostoc is a genus of fresh-water algae—which forms greenish masses in fresh water, in damp places and on stones.

We now come to the year 1703. Cooper in his *Annals of Cambridge* states: "On the 10th of February a Grace passed the Senate for investing with the title of Professor of Chemistry John Francis Vigani, a native of Verona, who had taught Chemistry with reputation in Cambridge for twenty years previously." Monk refers to this appointment as a strong mark of approbation of the University.

In a certain Dr Sherrington's manuscript there are notes on the lectures which Vigani gave at Queens' College on and after 19 November, 1705.

Again in the *Family Memoirs of William Stukely, M.D.*, published by the Surtees Society, there is the following record:

"This winter, 1705, I went again to Chymical lectures with Signor Vigani at his laboratory at Queens' College. I took down all his readings in writing and have them in a book with drawings of his manner of building furnaces." Two years later he states: "I continued to be present at Signor Vigani's chymical lectures and this time went through a course of

Materia Medica with him.” Later on he says: “At this time Dr Bentley made a new chemical laboratory at Trinity College and Signor Vigani directed it and was chosen Professor of Chemistry by the University and was the first.”

Monk, in his *Life of Richard Bentley*, Master of Trinity, says that it was one of Bentley’s aims to concentrate at his college all the science-teaching in the University and resolved to transplant Vigani into Trinity, and accordingly he repaired and fitted up an old lumber house as an “elegant chemical laboratory,” and here Vigani delivered his courses for some years. Bentley’s conduct in this business, like several of his laudable undertakings, did not escape an uncharitable construction, and the forming of this chemical laboratory was the subject of one of the twenty-four accusations against his administration, and curiously enough in the heated controversy that waged round this forming of the “Chymical Laboratory,” Vigani’s name does not come in, indeed it is not even mentioned by those who were inclined not only to attack Bentley, but as much as possible to depreciate the study of science.

If Vigani had been, as described, “a drunken fellow,” the appointment of such a man to a Professorship could hardly have been made. Still less would such an abuse have escaped comment, especially as he was appointed to teach chemistry in Trinity by the much criticized Master.

The letter dated 13 September, 1707, to Mr Roger Cotes, Fellow of Trinity College, and Plumian Professor of Astronomy, is interesting (Pl. II, fig. 2).

Apparently after delivering these lectures for a few years he returned to Newark. Professor Ferguson obtained a copy of his will, which was made on 19 July, 1712. It was proved in the Exchequer Court of York, by the oath of Frances Phisick, his daughter, the sole executrix and legatee, on 13 June, 1713.

In the inventory of the goods and chattels he left behind appears the item, “Goods belonging to the Laboratory, value £20.” It would appear, therefore, that he carried on in Newark some of his chemical experiments. In the Newark Parish Church register, there is an entry of his burial on 26 February, 1712/13.

II. AN APPRECIATION OF VIGANI'S WORK IN CHEMISTRY.

To estimate Vigani's professional position would take an amount of detailed exposition, interesting only perhaps to students of the history of chemistry. I will, however, quote a few of the references to his work *Medulla Chymiae*. The London edition of 1683 of this work is the subject of a review in the *Acta Eruditorum*. The reviewer quotes and endorses the commendation of T.R., who in the prefatory epistle calls it a booklet of small bulk but "overflowing with marrow." Halle, however, is not so laudatory, for he calls it in so many words a "confused farrago of experiments."

In the *Histoire de la Chymie*, by Ferdinand Hoefer, 1843, there is a long paragraph upon Vigani's work. From this we learn that Vigani belonged to the famous school of Boyle, and was a declared adversary of the obscure and often incomprehensible theories of the alchemists. He took experiment for his guide in his researches, and gloried in the fact that he championed nothing which he himself had not observed.

Vigani was one of the first to destroy the error of the alchemists who believed that the antimony used to prepare "le vin emetique" lost nothing of its weight, and affirmed by experiment that the antimony did lose weight, and the emetic effect of the wine is caused by a substance produced by the combination of particles of tartar in the wine with particles of antimony. This emetic wine has been in successive British Pharmacopœias under the name of "Vinum antimonialis" and is still prescribed by physicians. Vigani also produced a substance, "mercurius viridis," which he regarded as a great secret.

Kopp in *Geschichte der Chemie*, 1847, refers to the use of vessels made of antimony in which wine was allowed to stand overnight before being drunk—"pocula perpetua." The use of pills of metallic antimony described as "everlasting" persisted for a rather longer time: their use is based on the belief that such pills act only by contact and do not lose weight.

This error concerning antimony is stated by Nicasius Le Febure, an original Fellow of the Royal Society, in *A compleat body of Chymistry*, 1670, who says that: "it is only by an emanation or irradiation of the inward virtue that these cups

and pills do work, and that their virtue is miraculously, as it were, repaired and again supplied.”

Vigani in his *Medulla Chymiae* and also Lemery were the first to expose this error.

Stahl (1650–1734), a celebrated German chemist, says: “Viganus, who was accustomed to work more with his hands than with mere notions, saw the difficulties, indicating not that he was an empirical worker but that he knew that he must attend to practical conditions if he wished to be successful in carrying out any idea into practice.”

J. Campbell Brown in his *History of Chemistry* states that Vigani made several observations on antimony, and discussed the distillation of acetic acid, the first fraction of which he found to be inflammable.

Other references are given in: *Bibliotheca Chemica*, by John Ferguson, 1906; *Dictionary of National Biography*, 1899.

There is in the University Library a manuscript in duodecimo, the title-page of which has upon it “*Cours de Chemie*—Joan Francis Vigani Veronensis.” It is in English and contains directions for compounding chemical preparations and also miscellaneous notes and prescriptions. These notes appear to have been written by someone who attended his lectures and not by Vigani himself. Unfortunately there is neither the date nor the name of the College where the demonstrations were given.

In this “he appears to have given the best methods he knew of making the compounds and to have explained their medical properties.”

Professor Ferguson sums up his paper in the following words:

“Vigani never attained a great reputation, certainly not a European one. But he was a diligent worker, a skilled experimenter, and in spite of his small command of English even after twenty years living in the country, he must have been a successful teacher.

“He was an accurate observer and was more successful in his Natural History descriptions than in his chemical theories. His lectures on the *Materia Medica* are well done and show no small amount of knowledge.

“I do not think that Vigani’s appointment to the pro-



Fig. 2.

Vigani's Materia Medica Cabinet.

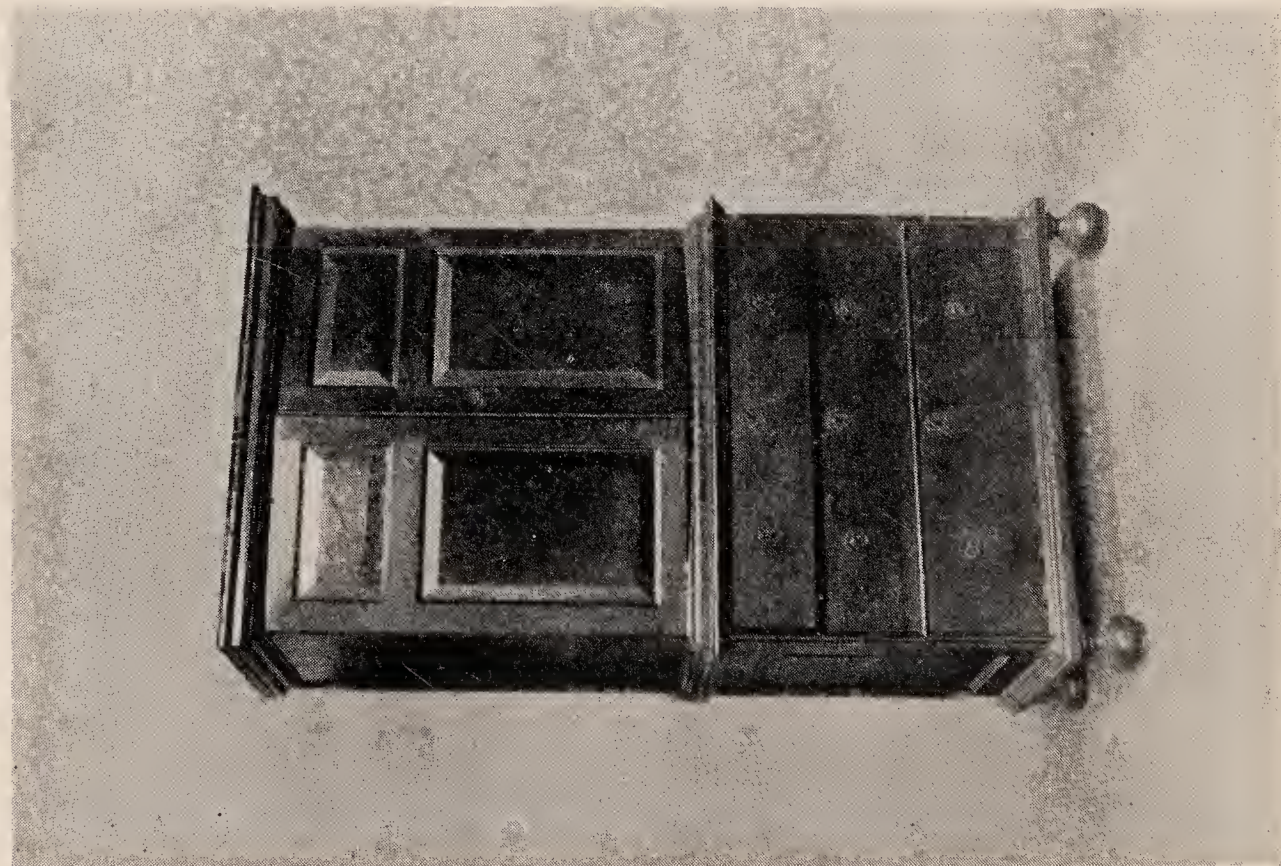


Fig. 1.

fessorship was one which need cause any regret. He had not the grip of Beguinus or of Glaser—he had to contend with the language and customs of a foreign country and he lived in the midst of College and medical disputes, but he must have been endowed with no small perseverance to overcome his drawbacks and no small prudence and caution to live on such good terms with all, that he secured and retained the position which he did.

“To his prudence and caution it is in part owing that his biographer has so few positive facts to deal with—that he himself comes out of a cloud of uncertainty as to his birth, moves before us dimly seen through haze and doubt and finally disappears in the darkness that surrounds his resignation and death.”

I have recently found in the University Library a small book written in 1730 by Richard Bradley, F.R.S., Professor of Botany in the University, entitled, *A Course of Lectures upon the Materia Medica, Antient and Modern, read in the Physics Schools at Cambridge upon the Collections of Dr Attinbrooke and Signor Vigani deposited in Catharine Hall and Queens' College*. The collection of Dr Attinbrooke's, or, as we know him better, John Addenbrooke, is still in the former Library.

III. THE MATERIA MEDICA CABINET IN THE LIBRARY OF QUEENS' COLLEGE.

When the President and Fellows of Queens' College allowed this Society to visit their Library in 1922, this cabinet (Pl. III, fig. 1) was noticed under the staircase, and, being particularly interested in the subject of drugs, it naturally attracted my attention. Stukely in the entry in his *Diary* stated that he went to a course on Materia Medica, and we may infer that it was with Vigani. The question arose therefore as to whether this collection in Queens' was the actual one from which Vigani lectured. There was, however, no placard or notice in the chest stating that the collection had been made by Vigani, and I hesitated to assume that it was so without some evidence other than conjecture or tradition. The then President (Dr Fitzpatrick) was kind enough to search among the

College papers, and found several invoices, letters and receipts bearing Vigani's name. Among these there are some of great interest.

(1) 16 January, 1704 (Pl. IV, fig. 1), from Francis Porter a druggist in London, reads, modernized, as follows:

Mr Vigani I sent you yesterday, by Mr Martin, Cambridge Carrier, as under written. I could not get several of the things, viz. black lead Spongia . . . fennell and Portingale jar. I was asked ten shillings for a ball that's found in a bullock's stomach. I do not know what sort of raw sack yarn you would have of, and no good Spanish saffron to be had so sent none, but if you please to send me a sample of what sort of silk you would have I will procure it for you. I had sent these things sooner, but could not get many of them. I returned your bill back by a gentleman that brought it. The hazard etc and the charges would be considerable. Your best way is to order your correspondent to send it by a safe road and so the party that brings it to have a receipt. Your friend came in a morning and not a drinking time. If he would have been pleased to have come back at an evening should have been glad to have presented him with a glass of wine,

I am your obliged servant,
Fran Porter.

Then follows the invoice of drugs, thirty in all, including myrrh, tamarinds, manna, aloes, liquorice and opium.

The letter was addressed to Catharine Hall, Cambridge, sealed with a wafer, and "Sent through Mr. Sherman against Ye Two Swans."

(2) 8 February, 1704 (Pl. V, fig. 1*b*) reads as follows:

Mr Vigani I have recd of your Carrier thirty one pounds fourteene shillings and payd the carridge of it, he hath a Recete in full but the last parcel sent you . . . you have not taken Notice of it which comes to twenty two shil'gs....

I am,
Your Oblidged Serv^t,
Fran Porter.

(3) 9 February, 1704:

To Seignior Vigani	2.	3.	0
Paid Pursar for ye return of 20th.	0.	2.	0
For ye carriage of six boxes of Glasses.	0.	10.	6
For 2 quires of gilt-paper and 5 of other paper.	0.	7.	0
	3.	2.	6.

Recd. this three pounds two shillings and sixpence of ye Master.

Poley Clopton.

Feb. 1704 ⁵ upon a review of the bills it
appears how to me for the materia Med. sh. L. 1
medica, ~~to be~~ from Queen's Coll. $51 = 07 = 4 \frac{1}{2}$

J. Fran. Vigan,

Phys. Doctor

it his several rings in the repository
that it is not in the bills because they
Charge to London which come to twenty
two pounds 3 shillings received before now

Phys. Doctor

W. Vigan

London Feb. 8 1704

I have sent of your Currier thirty one pounds
for your travelling (I pay in Currier of the
to take a horse and carriage but the last passage
sent you the friends of family you have not taken
Notice of it which was to be twenty two shillings
I desire you to order it being you have been
supplied with money I thought convenient to
draw in it without questioning but you forget
another passage that you will need money
I am

Your Obedient Son

Tru. Doctor

S^r

I was ordered by M^r. Vigan to deliver you to pay
me for those Glasses which I sent you down
the Order which I suppose gave you. As to the only
you may please to order Glasses or wine. I think
fit to pay me giving me a line of Advice &
in so doing you'll oblige I P^r your Obedient
Son & your Glass in
Newgate Street 6 May 1704

Tru. Doctor

Agreed At --- 12:12:6

Aug. 1st 1704. Recd. y^r of m^r Doctor
Ten pounds for a cabinet for y^e
of Queen's College in Cambridge

by m^r. John Austin

From *Alumni Cantabrigienses* we learn that Mr Clopton was a Fellow of Queens', 1696–1725, and Proctor of the University, 1703/4.

(4) Another invoice dated London, 18 February, 1703, and made out to Mr John Francis Vigani:

Bought of Hen. Colchester, Druggist, at the Maiden's Head in Cheapside, Bow Church, for the Honourable Mr Clopton, Proctor of the University and fellow in Queens' College in Cambridge.

Then follow the list of substances, the quantities and prices. A very large proportion of these I have found in the Cabinet, such as Oil of Cloves, Aniseed and Cinnamon, Palm Oil, Scammony, Turpentine, Spermaceti. Alum Roach, Amygdal. Amar. Amgdal. Valencia, 4 oz, Arg. Vivum, [Glass], Bals. Peru, Bals. Capivi, Bals. Tolu, Bol. Armen. Camphor, Cantharides, Castor Fiber, Cochineal, Cassia Fistula.

(5) 7 March, 1703/4 (Pl. IV, fig. 2). Invoice of goods sent by Francis Porter to Cambridge. This contains among others the following: Lodestone, Guaiacum, Coccus Indicus, Grains, Ammoniacum, Benzoinum, Taccamahacca, Bezoar Oriental, Calamine.

(6) 6 May, 1704 (Pl. V, fig. 2a). Letter from Charles Clutterbuck to

The Honourable Coll. Clopton,
at Queens' College, Cambridge.

Sr,

I was ordered by Mr Vegany to desire you to pay me for those Glasses &c which I sent y^o down per his Order, who I suppose gave y^o Acc^t p'ticularly.

You may please to order y^e Carriers or who y^o think fitt to pay me giving me a line of Advice & in so Doing you'll Oblige,

Y^{or} humble Serv^t,

Cha: Clutterbuck.

From y^e hour Glass in Newgate street. 6 May, 1704.

A p'cell Del' At. £2. 12. 6.

(7) 12 October, 1704. A copy of previous invoice with demand for payment.

(8) 6 February, 1704/5 (Pl. V, fig. 1a). A letter from Vigani to Poley Clopton.

(9) 8 August, 1704 (Pl. V, fig. 2b). The receipt for the making of the cabinet.

Rece'd yⁿ of Mr Clopton Tenn pounds for a cabinet for y^e use of Queen's College in Cambridge,

by me,

John Austin.

A word or two about the cabinet itself. It is well made of rich brown oak definitely of Queen Anne period: height 5 ft. 6 in., width 33 in. and depth 17 in.

It is divided into upper and lower parts, the upper part has two doors which enclose 26 drawers varying in depth in two columns and lettered from A to Z. These contain the various solid substances.

The lower part consists of three large drawers (Pl. III, fig. 2), two of which are divided by partitions which hold bottles (or glasses as they were then called) containing liquids unidentified.

There were also a number of parcels containing drugs apparently left over from those exhibited in the other drawers, or after making the various preparations.

The fastenings are typical of the period, the steel bolt and beautiful key being particularly interesting.

IV. THE SUBSTANCES IN THE CABINET.

General distribution.

Drawer	Number	Substances
A	30	Gum resins
B	—	—
C	35	Seeds
D	35	Seeds
E	30	Minerals
F	30	Precious stones
G	46	Garden seeds
H	20	Juices and extracts
I	63	Pigments
K	25	Fruits
L	25	Geological specimens
M	22	Earths
N	15	Barks
O	18	Shells
P	12	Roots
Q	20	Roots
R	18	Animal substances
S	11	Woods

Drawer	Number	Substances
T	12	Flowers and roots
U	20	Metals and earths
W	14	Fossils
X	11	Mixed substances
Y	41	Galenical preparations
Z	17	Roots
1	21	Jars of drugs
2	44	Miscellaneous
3 } 4 }	31	Packets

There are some 600 specimens in the cabinet consisting in the main of substances used in medicine at that time. A very large proportion of these are mentioned in Culpeper's *Herbal* written in 1653, and are of vegetable, animal and mineral origin. These substances are of enormous and fantastic variety and correspond very largely with the list of those substances which the London College of Physicians at that time requested the apothecaries to keep in their shops. Each specimen is carefully placed in a paper tray which fortunately in most cases is labelled with the name of the substance. Some of these papers are gilt-edged.

I am of the opinion that in the main the writing of the names corresponds with the handwriting of Vigani, of which we have several examples in the letters written by him. There are, however, some exceptions to this. In looking through the watermarks¹ of the paper used to form these trays I found that the majority corresponded to those used on paper made in 1698, but there were a few bearing the watermark G.R., and therefore indicating that those particular substances were placed in position at a later date than 1714. I noticed too that in two instances the name of R. Bradley or his initials appeared. There is evidence, therefore, that Bradley, who wrote his book on this collection in 1730, added some substances then, or rearranged some that were there already.

Additions after 1763, were probably made, as a parcel of drugs was wrapped in a newspaper dated 1793.

¹ At the suggestion of Mr E. A. B. Barnard these watermarks were identified by references to a paper by Heawood in the *Royal Geographical Journal*, 1924.

Specimens of special interest.

Drawer

- A Labdanum. Gum from *Cistus Labdanifera*. Dioscorides states that "this was scraped from the beards of goats which had fed on the leaves of the shrub."
 Olibanum. Frankincense, Exodus xxx, 34.
 Benzoin. Gum Benjamin from Sumatra and Siam. From the plant *Stryax Benzoin*.
 Taccamahacca. Quinsystates that this is obtained from New Spain, and adds: "Reckoned good burned upon coals for hysteria."
 Guaiacum. From *Guaiacum Officinale* from the island of San Domingo; an ingredient of "Chelsea Pensioner."
 Tragacanth. Gum from stem of *Astragalus*. A low shrub in Greece and Asia Minor. Theophrastus mentions it.
- B Empty.
- C Cardamon. Used in India as a condiment and in medicine since remote times.
 Cummin. Isaiah xxviii, 25. One of the spices in common use; an ingredient of curry powders.
 Psyllium. From *Plantago Psyllium*. Known to have been used from an early period in some countries. Now coming into common use again.
 Hyoscyamus. Indigenous in this country. Frequently mentioned in Anglo-Saxon medical books.
- D Sinapis. Mustard.
 Lini. Dried ripe seeds of *Linum Usitatissimum*. Linseed.
 Annios. An ingredient of "Thieraca Andromachi."
- E Vitriolum Album (zinc sulphate), Vitriolum Viridium (iron sulphate), Vitriolum Romanum (copper sulphate).
- F Precious stones: Amethyst, Topaz, Garnet, Ruby, Jet, Pearls, Sapphire. These all have uses given to them in medicine by Culpeper.
- G Contains garden seeds.
- H Manna. Saccharine exudation from *Fraxinus Ornus* from Mediterranean countries.
 Myrrh. An ingredient of the holy oil used in Jewish ceremonial. Recommended in Anglo-Saxon leech-books to be used with frankincense in superstitious medical practices.
 Aloes.
 Dragon's Blood. A frequent ingredient of ancient medicine. Now used by french polishers.
 Opium. The source of morphine. Has been used for ages to allay pain and produce sleep.
- I Pigments: Carmine, Vermilion, Orpiment, Bleu Bice, and many others.

Drawer

- K Cassia Fistula, ingredient of "Confection of Senna."
 Nutmeg.
 Nux Vomica.
 Bitter Almonds.
- L Geological specimens.
- M Lapis Calaminaris. Native zinc carbonate. The chief ingredient of Calamine Lotion.
 Lapis Hibernica. Irish Slate. Still asked for for lumbago.
 Bole Armenia. A red earth.
 Terra Sigillata Rubra.
 Terra Sigillata Alb.
 Terra Sigillata Lemnia. This is, as its name implies, sealed earth. In the island of Lemnos on one day in the year a certain mine was opened in the presence of the clergy and magistrates, and after the recital of prayers a quantity of the earth was removed. This was made into a paste, divided into small pastilles, then stamped and distributed. Extravagant claims were made for its uses as medicine, one old writer stating that "it dries, binds, resists putrefaction and poison, comforts and strengthens the head, heart and stomach and provokes sweat." Dose: one teaspoonful. The composition of this Terra Sigillata is aluminium silicate, or kaolin, which is used in very large quantities to-day as an absorbent.
- N Coral. The red variety was largely recommended in the old books.
 Peruvian Cinchona Bark. The source of quinine, concerning which there have been whole volumes written, and the tercentenary of the discovery of which was celebrated in London 1931.
- O Shells.
- P Roots: Alkanet, used for colouring.
- Q Roots: Turmeric, Jalap, Ellebore.
- R Animal substances:
 Musk, used for hysteria.
 Castor Fiber.
 Viper.
 Scorpio.
 Spermaceti. A stearoptene, from the head of the whale, used in making cold creams.
 Chelae Cancrorum. Claws of crabs. Dr Gascon's powder consisted of crabs' claws collected when the sun and moon are in conjunction in the sign Cancer.
 Oculi Cancrorum. "Crabs' Eyes." A little chalk disc found in the stomach of the crawfish at the time the animal is about to change its shell. Consists principally of carbonate and phosphate of lime, and used as an absorbent and antacid.
 Cornus Cervi. Raspings of the horn of the hart. Hartshorn when distilled with alkali yields ammonia. Thus the origin of spirits of hartshorn.

Drawer

- S Woods.
- T Flowers and Roots such as Rhubarb, Jalap.
- U Metals and their compounds such as Antimony, Bismuth, Litharge.
- W Fossils: Echinoid, Gryphaea, Ammonite, Horse's Tooth.
- X Mixed substances.
- Y In this drawer there are a large number of the preparations of the different drugs mentioned. There is compound powder of the claws of the crab. Also a jar labelled Balsam of Lucatellus. This is a mixture of Venice Turpentine, Yellow Beeswax, Olive Oil and Red Sanders Wood, and corresponds to-day exactly with its original formula. Notwithstanding that presumably it has been kept for two hundred years it is in an excellent condition. Curiously enough, I have an old drug pot with the name of this substance upon it.
- Pill Stom. et Gum. Culpeper mentions this as containing Aloes, Senna, Gum Ammoniacum, Mastic, Myrrh, Saffron and Syrup of Purging Thorn.
- Laudanum Londonensis. Thebane Opium. Contains Opium, Saffron, Castoreum and Spirits of Wine. Culpeper says: to provide sleep take not above 2 grains of it, going to bed. "Take care how you be too busy with such medicine lest you make a man sleep to doomsday."
- Emplastrum Oxycrocium. Consists of Saffron, Ship's Pitch, Colophony Resin, Yellow Wax, Turpentine, Galbanum, Myrrh, Olibanum and Mastic.
- Unguentum Apostolorum.
- Unguentum Basilicon. White Wax, Pine Rosin, Heifer's Suet, Turpentine, Olibanum, Myrrh and Oil.
- Pil. Coch. Major. A mixture of Hiera Picra.
- Pil. Starkie. Contains Opium and Soap. [Pil. Saponis Co.]
- Emplast. Diachylon. Contains Litharge, Linseed, Foenugreek, Marshmallow and Oil.
- Troch. de Carabe. Troches or lozenges of amber, red coral, mastic and lacquer.
- Troch. de Myrrh. Lozenges of Myrrh and Cummin.
- Troch. Alhandal. This contains Colloquintida, Oil of Roses, Bdellium, Gum Arabic and Tragacanth.
- Z Roots: Zedoary, Gentian, Rhubarb, Ipecacuanha.
- 1 Balsam of Peru.
- Storax, used in making Friar's Balsam.
- Balm of Gilead.
- 2 Oil of Cinnamon.
- Oil of Aniseed.
- Oil of Cloves.
- Turpentine.

I have had these four essential oils analysed to ascertain how far they comply with the standards laid down in the new 1932 Pharmacopœia. Three out of the four would pass the present day's tests in chemical and physical standards, and only fail in the matter of their sensory characteristics.

In this paper I have endeavoured to trace the life history of this interesting old character of the seventeenth century—Vigani—and to outline his achievements in spite of difficulties and disabilities. I have tried to show the influence he had in the early days of the teaching of chemistry in Cambridge, a subject which was at the time inextricably mixed up with theology, astrology, medicine and drugs—an entirely different subject from the exact science we know as chemistry to-day. I have described the *Materia Medica* cabinet which he evidently arranged and the drugs he collected. These are of absorbing interest, as they show in a very clear manner the trend and thought of medical knowledge and practice of those times. I think it will be agreed that Queens' is singularly fortunate in the possession of this cabinet, and is to be congratulated upon having preserved it and its contents in such excellent condition for the past two centuries.

In conclusion I wish again to express the fullest acknowledgment of the work of the late Professor Ferguson, whose paper I have freely drawn upon, and to thank the President and Fellows of Queens' College for allowing me to have free access to the collection, and for their kindness in consenting to its exhibition at this lecture.

